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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,399	01/21/2004	Su Yong Park	P24699	1295

7055 7590 08/02/2006

GREENBLUM & BERNSTEIN, P.L.C.  
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RESTON, VA 20191

EXAMINER
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KUHNS, ALLAN R

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/760,399	<b>Applicant(s)</b> PARK, SU YONG	
	<b>Examiner</b> Allan Kuhns	<b>Art Unit</b> 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on May 26, 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>082404</u> . | 6) <input type="checkbox"/> Other: _____  |

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1.Applicant's election with traverse of Group I, claims 1-4 in the reply filed on May 26, 2006 is acknowledged. The traversal is on the ground(s) that no serious burden to the examiner would ensue if both groups were examined, and the search for the inventions would be coextensive or at least significantly overlap. This is not found persuasive because a serious burden on the examiner would result since the search for Group I requires finding claimed manipulative steps for forming a mold while the search for Group II involves article structure.

The requirement is still deemed proper and is therefore made FINAL.

2.Claims 5-7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 26,2006.

3.Does each English Language Abstract presented with the IDS filed August 24, 2004 correspond to one of the foreign patent documents listed?

4.The use of the trademark Styrofoam has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

5.Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

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applicant regards as the invention. These claims are indefinite because "the thickness-forming portion" of claim 1 lacks antecedent basis within the claims.

6.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7.Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han (1020020082710) in view of Martin (4,474,722). Han discloses or suggests the basic claimed method of manufacturing a mold including machining a material that is easily subjected to NC machining, so that a skin or surface material can be or is prepared, applying a resin onto the machined surface to prepare a mold portion, releasing the mold portion after the resin has been cured and performing NC machining on that portion, and preparing a thickness defining portion of the mold. It is well known to produce enclosed mold structures for conducting vacuum forming molding processes and thus it would have been obvious to one of ordinary skill in the art practicing the process of Han to also prepare an upper mold in order to press and support each side of an object that is being subjected to vacuum forming. Framing a surface to which flowing material is to be applied is also well known and such would have been obvious to one of ordinary skill in the art in order to prevent the applied material from flowing outside of a desired position. At least in the abstract, Han does not state what type of resin is applied to the machined skin or surface, but Martin teaches the aspect of applying an epoxy material to such a surface in a mold forming operation. It would have

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been obvious to one of ordinary skill in the art to incorporate the use of epoxy material as the resin employed in the mold forming operation of Han since such resins are known to produce adequate forming surfaces. The aspect that the mold is to be used in a RIM process is essentially a statement of an intended use for the molded article rather than a manipulative step used to distinguish "method" claims over prior art.

Han teaches the aspect of using polystyrene or Styrofoam, as in claim 2, and it would have been obvious to one of ordinary skill in the art to apply the resin in a horizontal state, as in claims 3 and 4, since that side of the resin is not intended to serve as the article forming surface.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Allan R. Kuhns*  
ALLAN R. KUHN  
PRIMARY EXAMINER AU 1732  
7-28-06